NEW MEXICO
ENVIRONMENT DEPARTMENT

Harold Runnels Building
1190 Saint Francis Drive, PO Box 5469
Santa Fe, NM 87502-5469
Telephone (505) 827-2855
www.env.nm.gov

Michelle Lujan Grisham
Governor

Howie C. Morales
Lt. Governor

James C. Kenney
Cabinet Secretary

Jennifer J. Pruett
Deputy Secretary

Certified Mail – Return Receipt Requested

March 20, 2019

The Honorable Andrew Nunez, Mayor
Village of Hatch
133 N. Franklin St.
Hatch, NM 87937

Re: Minor Municipal, SIC 4952, NPDES Compliance Evaluation Inspection, Village of Hatch Wastewater Treatment Plant, NM0020010, February 12, 2019

Dear Mayor Nunez:

Enclosed please find a copy of the report and check list for the referenced inspection that the New Mexico Environment Department (NMED) conducted at your facility on behalf of the U.S. Environmental Protection Agency (USEPA). This inspection report will be sent to the USEPA in Dallas for their review. These inspections are used by USEPA to determine compliance with the National Pollutant Discharge Elimination System (NPDES) permitting program in accordance with requirements of the federal Clean Water Act.

Further explanations and problems noted during this inspection are discussed on the completed form and checklist of this inspection report. Introduction, treatment scheme, and problems noted during this inspection are discussed in the "Further Explanations" section of the inspection report.

You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and advised to modify your operational and/or administrative procedures, as appropriate. If you have comments on or concerns with the basis for the findings in the NMED inspection report, please contact us (see the address below) in writing within 30 days from the date of this letter. Further, you are encouraged to notify in writing both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

NPDES Enforcement Coordinator
Environmental Protection Agency, Region 6 NPDES
Enforcement Branch (6EN-WM)
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

Program Manager
New Mexico Environment Department
Surface Water Quality Bureau (N2050)
Point Source Regulation Section
P.O. Box 5469
Santa Fe, New Mexico 87502

David Long (Long.David@epa.gov) is USEPA Region 6's Acting NPDES Enforcement Coordinator at the above address. If you have any questions about this inspection report, please contact Jennifer Foote at 505-827-0596 or at Jennifer.foote@state.nm.us.

Sincerely,

/s/ Sarah Holcomb

Sarah Holcomb
Program Manager
Point Source Regulation Section
Surface Water Quality Bureau

Cc: Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail
David Long, USEPA (6EN-WM) by e-mail
Nancy Williams, USEPA (6EN-WC) by e-mail
Amy Andrews, USEPA (6EN-WM) by e-mail
David Esparza, USEPA (6EN-WM) by e-mail
Brent Larsen, USEPA (6WQ-PP) by e-mail
Michael Kesler, NMED District III by e-mail

Form Approved
OMB No. 2040-0003
Approval Expires 7-31-85

NPDES Compliance Inspection Report

Section A: National Data System Coding

1	Transaction Code	2	NPDES	11	12	yr/mo/day	17	18	Inspec. Type	19	Inspector	20	Fac Type
	N	5	NM0002001			190212			C		S		1

Remarks: MINOR MUNICIPAL WWTP

67	Inspection Work Days	69	70	Facility Evaluation Rating	71	BI	72	QA	73	74	75	Reserved	80
				3		N		N					

Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*

VILLAGE OF HATCH WWTP
1 MILE SOUTH OF EAST SIDE OF HWY 85, SOUTH OF SCHOOLS
HATCH, DONA ANA COUTY, NEW MEXICO 87937

Entry Time /Date: 2-12-19/ 1:00pm

Exit Time/Date: 2-12-19/4:10 pm

Permit Effective Date: **August 1, 2015**

Permit Expiration Date: **July 31, 2020**

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)

JUAN DURAN, SUPERINTENDENT, 575-640-6215

Name, Address of Responsible Official/Title/Phone and Fax Number

THE HONORABLE ANDREW NUNEZ, MAYOR/(575) 520-1654
133 N. FRANKLIN STREET
HATCH, NEW MEXICO 87937

Contacted: Yes [ ] No [x]

Other Facility Data

GPS:
N 32° 40' 05"
W -107° 08' 17"

SIC 4952

Section C: Areas Evaluated During Inspection

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

S	Permit	S	Flow Measurement	M	Operations & Maintenance	N	CSO/SSO
U	Records/Reports	S	Self-Monitoring Program	S	Sludge Handling/Disposal	N	Pollution Prevention
S	Facility Site Review	N	Compliance Schedules	N	Pretreatment	N	Multimedia
S	Effluent/Receiving Waters	M	Laboratory	N	Storm Water	N	Other:

Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

See attached sheets for further details.

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Telephone/Fax	Date
Jennifer Foote */s/ Jennifer Foote*	**NMED/SWQB 505-827-0596**	**3/19/19**
Signature of Management QA Reviewer	**Agency/Office/Phone and Fax Numbers**	**Date**
Sarah Holcomb, Program Manager */s/ Sarah Holcomb*	**NMED/SWQB 505-827-2798**	**3/20/19**

Village of Hatch WWTP	PERMIT NO. NM0020010

SECTION A - PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS ☒ S ☐ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED No*)
DETAILS: **Permit expires July 31, 2020, reapplication is due 6 months prior.**

1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE	☒ Y ☐ N ☐ NA
2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES	☐ Y ☐ N ☒ NA
3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT	☒ Y ☐ N ☐ NA
4. ALL DISCHARGES ARE PERMITTED	☒ Y ☐ N ☐ NA

SECTION B - RECORDKEEPING AND REPORTING EVALUATION

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. ☐ S ☐ M ☒ U ☐ NA (*FURTHER EXPLANATION ATTACHED Yes*)
DETAILS:.**WET Testing Reporting**

1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs.	☒ Y ☐ N ☐ NA
2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE.	☒ S ☐ M ☐ U ☐ NA
a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING	☒ Y ☐ N ☐ NA
b) NAME OF INDIVIDUAL PERFORMING SAMPLING	☒ Y ☐ N ☐ NA
c) ANALYTICAL METHODS AND TECHNIQUES.	☒ Y ☐ N ☐ NA
d) RESULTS OF ANALYSES AND CALIBRATIONS.	☒ Y ☐ N ☐ NA
e) DATES AND TIMES OF ANALYSES.	☒ Y ☐ N ☐ NA
f) NAME OF PERSON(S) PERFORMING ANALYSES.	☒ Y ☐ N ☐ NA
3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE. **Calibrated 2-12-19**	☒ S ☐ M ☐ U ☐ NA
4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR	☒ S ☐ M ☐ U ☐ NA
5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA.	☒ Y ☐ N ☐ NA

SECTION C - OPERATIONS AND MAINTENANCE

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. ☐ S ☒ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED Yes*)
DETAILS:

1. TREATMENT UNITS PROPERLY OPERATED.	☐ S ☒ M ☐ U ☐ NA
2. TREATMENT UNITS PROPERLY MAINTAINED.	☐ S ☒ M ☐ U ☐ NA
3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED.	☒ S ☐ M ☐ U ☐ NA
4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE.	☒ S ☐ M ☐ U ☐ NA
5. ALL NEEDED TREATMENT UNITS IN SERVICE.	☒ S ☐ M ☐ U ☐ NA
6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED.	☐ S ☒ M ☐ U ☐ NA
7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED.	☐ S ☒ M ☐ U ☐ NA
8. OPERATION AND MAINTENANCE MANUAL AVAILABLE.	☒ Y ☐ N ☐ NA
STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED.	☒ Y ☐ N ☐ NA
PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED.	☒ Y ☐ N ☐ NA

Village of Hatch WWTP	PERMIT NO. NM0020010

SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR?	☐ Y ☒ N ☐ NA
IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED?	☐ Y ☐ N ☒ NA
HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS?	☐ Y ☐ N ☒ NA
10.HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT?	☐ Y ☒ N ☐ NA
IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT?	☐ Y ☐ N ☒ NA

SECTION D - SELF-MONITORING

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED NO).*
DETAILS:

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT.	☒ Y ☐ N ☐ NA
2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES.	☒ Y ☐ N ☐ NA
3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT.	☐ Y ☐ N ☒ NA
4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT.	☒ Y ☐ N ☐ NA
5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT.	☒ Y ☐ N ☐ NA
6. SAMPLE COLLECTION PROCEDURES ADEQUATE	☒ Y ☐ N ☐ NA
a) SAMPLES REFRIGERATED DURING COMPOSITING.	☐ Y ☐ N ☒ NA
b) PROPER PRESERVATION TECHNIQUES USED.	☐ Y ☐ N ☒ NA
c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3.	☒ Y ☐ N ☐ NA
7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT?	☐ Y ☐ N ☒ NA

SECTION E - FLOW MEASUREMENT

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED No)*
DETAILS:

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. TYPE OF DEVICE 6" parshall w ultrasonic meter	☒ Y ☐ N ☐ NA
2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED.	☒ Y ☐ N ☐ NA
3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED.	☒ Y ☐ N ☐ NA
4. CALIBRATION FREQUENCY ADEQUATE. *(DATE OF LAST CALIBRATION* Nov 14 2018)	☒ Y ☐ N ☐ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES.	☒ Y ☐ N ☐ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE.	☐ Y ☒ N ☐ NA
5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE. *No flow at time of inspection*	☐ Y ☐ N ☒ NA
6. HEAD MEASURED AT PROPER LOCATION.	☒ Y ☐ N ☐ NA
7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES.	☒ Y ☐ N ☐ NA

SECTION F – LABORATORY

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED Yes)*
DETAILS: TRC, pH, BOD, TSS performed at facility

1. EPA APPROVED ANALYTICAL PROCEDURES USED *(40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES)*	☒ Y ☐ N ☐ NA

Village of Hatch WWTP	PERMIT NO. NM0020010

SECTION F - LABORATORY (CONT'D)

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED ☐ Y ☐ N ☒ NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. ☒ S ☐ M ☐ U ☐ NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. ☒ S ☐ M ☐ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. ___ % OF THE TIME. ☐ Y ☒ N ☐ NA

6. SPIKED SAMPLES ARE ANALYZED. ___ % OF THE TIME. ☐ Y ☒ N ☐ NA

7. COMMERCIAL LABORATORY USED. ☒ Y ☐ N ☐ NA

BIO-AQUATICS
2501 MAYES RD #100; CARROLLTON, TX 75006

SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS. ☐ S ☐ M ☐ U ☒ NA *(FURTHER EXPLANATION ATTACHED No).*

OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOAT SOL.	COLOR	OTHER
001	n/a	n/a	n/a	Some foam visible in flume	n/a	n/a	

RECEIVING WATER OBSERVATIONS
Discharge is Batch flow every three hours, it was not flowing when the discharge was observed, photo 5.

SECTION H - SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED NO).*
DETAILS: sent to landfill

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. ☒ S ☐ M ☐ U ☐ NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. ☒ S ☐ M ☐ U ☐ NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: Sent to Landfill (e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

SECTION I - SAMPLING INSPECTION PROCEDURES *(FURTHER EXPLANATION ATTACHED).*

1. SAMPLES OBTAINED THIS INSPECTION. ☐ Y ☐ N ☒ NA

2. TYPE OF SAMPLE OBTAINED

GRAB _____ COMPOSITE SAMPLE ___ METHOD _____ FREQUENCY

3. SAMPLES PRESERVED. ☐ Y ☐ N ☒ NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. ☐ Y ☐ N ☒ NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. ☐ Y ☐ N ☒ NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE. ☐ Y ☐ N ☒ NA

7. SAMPLE SPLIT WITH PERMITTEE. ☐ Y ☐ N ☒ NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. ☐ Y ☐ N ☒ NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. ☐ Y ☐ N ☒ NA

Further Explanations
Village of Hatch Wastewater Treatment Plant
Compliance Evaluation Inspection
NPDES Permit No. NM0020010
Inspection Date: February 12, 2019

INTRODUCTION:
On February 12, 2019, Jennifer Foote of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) conducted a Compliance Evaluation Inspection at the Village of Hatch Wastewater Treatment Plant (WWTP). The Hatch WWTP has a design flow capacity of 0.3 MGD (million gallons per day) and is classified as a minor municipal discharger under the Federal Clean Water Act, Section 402, of the National Pollutant Discharge Elimination System (NPDES) permit program. It is assigned NPDES permit number NM0020010. This permit regulates the WWTP discharge to the Rio Grande in Water Quality Segment 20.6.4.101 of the New Mexico Administrative Code (NMAC). This segment includes the designated uses of irrigation, marginal warmwater aquatic life, livestock watering, wildlife habitat and primary contact.

The NMED performs a certain number of CEIs each year for the U.S. Environmental Protection Agency (USEPA), Region VI, under the NPDES permit program, in accordance with the Federal Clean Water Act. USEPA uses these inspections to determine compliance with the NPDES permit program. This inspection report is based on information provided by the permittee's representatives, observations made by the NMED inspector, and records and reports kept by the permittee and/or NMED.

INSPECTION DETAILS:
Upon arrival at the WWTP at 1300 hours on the day of this inspection, the inspector made introductions, presented her credentials, and explained the purpose of the inspection to Mr. Juan Duran, the Wastewater Superintendent. The inspector and Mr. Duran toured the facility. At the end of the tour, the inspector conducted an exit interview with Mr. Duran to discuss preliminary findings of the inspection. The meeting concluded at approximately 1610 hours.

TREATMENT SCHEME:
Wastewater from the Village of Hatch arrives at the WWTP through a series of seven lift stations to the entrance works. The flow enters the treatment works by first passing through a bar screen. The bar screen has approximately 1-inch gaps between the bars. Rags and debris picked up on the bar screen are placed in a dumpster and then sent with the sludge to a sanitary landfill. There is no influent flowmeter.

From the entrance works wastewater flows into one of two parallel sequencing batch reactors (SBR) units which each have the capability to treat 300,000 gallons of wastewater. Each unit is 44 feet by 29 feet and contains one mixer, one decanter, and two rows of fine bubble diffusers. Three 15 horse power blowers provide air for the aeration system in these units. Each cycle in the SBR tanks consists of a fill phase, mixing/aeration phase, settling phase, and decant phase. After decanting, wastewater enters the post equalization basin to hold until the batch discharge.

When the equalization basin reaches a certain level, effluent is released and flows past the ultraviolet (UV) disinfection system and passes through a Parshall flume with ultrasonic flow meter before being discharged. Samples are taken immediately after the UV system.

Sludge
Wasted sludge is sent to the digester for processing and disposal. When the digester gets full, waste activated sludge (WAS) is withdrawn and placed on one of six concrete-lined sludge drying beds where polymer is added to facilitate separation of solids and water. Return activated sludge (RAS) is sent back to the head of the plant flowing by gravity back to the lift station. Solids are removed from the concrete-lined drying beds and placed on a sand drying bed to

further dry out. After the sludge is dry, it is removed and placed in a plastic lined dumpster for shipment to the Camino Real Landfill in Sunland Park, NM.

Section B – Recordkeeping and Reporting Evaluation – Overall Rating of "Unsatisfactory "
Permit Requirements:

The permit requires, in Part I. F.2 WHOLE EFFLUENT TOXICITY TESTING (48-HOUR ACUTE NOEC FRESHWATER) If any valid test demonstrates significant lethal effects to a test species at or below the critical dilution, the frequency of testing for this species is automatically increased to once per quarter with no option for frequency reduction.

a. Part I Testing Frequency Other Than Monthly
1. The permittee shall conduct a total of three (3) additional tests for any species that demonstrates significant lethal effects at or below the critical dilution. The additional tests shall be conducted monthly during the next three consecutive months.
4. a. For any test which fails, is considered invalid, or which is terminated early for any reason, the full report must be submitted for agency review.

Findings for Recordkeeping and Reporting:

- The April 4, 2018 *48-HOUR ACUTE NOEC FRESHWATER* WET test failed. During the inspection, the lab report was provided to the inspector. Permittee was not aware that the full lab report needed to be provided to EPA upon failure. The DMR submitted on 8-6-18 stated that retest #3 passed, but lab results were not provided. Facility was not aware they needed to change to quarterly monitoring upon this failure.

Section C - Operations and Maintenance – Overall Rating of "Marginal "
Permit Requirements:
The permit requires, in Part III, Section B.3 – Proper Operation and Maintenance

a. *The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by permittee as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants and will achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of this permit.*
b. *The permittee shall provide an adequate operating staff which is duly qualified to carry out operation, maintenance and testing functions required to insure compliance with the conditions of this permit.*

Findings for Operations and Maintenance:

- Facility currently has only one certified operator. It is important that the city work towards having adequate backup staff.
- One of the mixers was broken and was in the process of repairs.
- Excessive foam was observed on the surface of the sequencing batch reactor (see Photo #2). The operator stated it was a seasonal problem and cleared out in the summer months (it was also observed during the last inspection which also occurred in winter). Monitoring results do not indicate an issue with the final effluent quality.

Section F: Laboratory– Overall Rating of "Marginal "
The permit requires, in Part I.A

footnote 3: Colony forming units (cfu) per 100 ml or MPN. The geometric mean of E.coli bacteria shall be used for reporting the 30-day average values. The geometric mean is calculated by multiplying all the daily

*values for the reporting period together and then taking that product to the power 1/N (where N is the number of samples). Examples= (A*B*C*D* E) $^{1/5}$, or (A*B)$^{1/2}$.*

Standard Methods 5210B states:

If dilution-water blanks show a DO depletion >0.2 mg/L, then improve purification or use water from another source

The permit requires, in Part III, C.5. Monitoring Procedures:

c. *An adequate analytical quality control program, including the analyses of sufficient standards, spikes, and duplicate samples to insure the accuracy of all required analytical results shall be maintained by the permittee or designated commercial laboratory.*

- Bench sheets for E.coli for the month of October 2018 were reviewed. There was a transcription error on the DMR, the 30 day value was noted as 175 on the handwritten form and entered as 0.175 on the electronic form. However, this number was also calculated incorrectly as described below:

  The colony count for the 80ml was not included in the total colony count for 10-25-19 sample. It should have been (10+27)*100/180= **21 avg cfu**. The 10-11-18 average colony count was calculated correctly.

  An error was made in calculating the monthly average. It appears that the geometric mean is not being calculated as described above in permit requirements. For October 2018 the 30 day avg value should have been (21*33)$^{1/2}$=**26 cfu.**

  The operator is calculating the 30 day loading = 30 day avg concentration* monthly avg flow*3.79*10
  The correct formula is 30 day avg concentration* monthly avg flow*3.79*10^7
  Using the correct numbers 26 * .154 *3.79*10^7= **$1.52x10^8$**

  The 7 day average loading was calculated using the average 30 day colony count, not the highest for the period. Using the formula and correct numbers= 7 day avg concentration* that days avg flow*3.79*10^7
  33 * .156 *3.79*10^7=**$1.95x10^8$**

- Bench sheets for BOD for 10-11-18 and 10-25-18 were reviewed. One of the dilution blanks for 10-25-18 was 0.3 mg/L, which is above the Standard Methods recommended range. The bench sheets provided do not include the influent BOD values used in calculating the percent removal.

- pH buffer solutions did not have a written opened-on date. The true expiration date for "USABlueBook" is either 6 months after opening, or the manufacturer's printed expiration date, whichever comes first. The true expiration date should be written on each bottle in addition to the opened-on date.

- Duplicates and spikes are not analyzed for 10% of samples.

Attachment 1

WET Testing Results April 4, 2018
and
WET DMR 8-6-18

DMR Copy of Record

Permit					
Permit #:	**NM0020010**	**Permittee:**	HATCH, VILLAGE OF	**Facility:**	HATCH, VILLAGE OF, WWTP
Major:	No	**Permittee Address:**	P. O. BOX 220 HATCH, NM 87937	**Facility Location:**	FRANKLIN AVENUE DONA ANA COUNTY DONA ANA COUNTY, NM 87937
Permitted Feature:	TX1 External Outfall	**Discharge:**	**TX1-Y** YEARLY 48-HR. ACUTE TOXICITY		
Report Dates & Status					
Monitoring Period:	**From 08/01/17 to 07/31/18**	**DMR Due Date:**	**08/28/18**	**Status:**	**NetDMR Validated**
Considerations for Form Completion					
(PASS = 0 FAIL = 1) REPORT PASS AS '0' OR REPORT FAIL AS '1' IN CONCENTRATION MIN. & AVG. ABOVE. IF THE 7-DAY CHRONIC MONITORING TEST PASSES, 48-HR. ACUTE MONITORING MAY BE SUBSTITUTED FOR THE REMAINDER OF THE PERMIT. OTHERWISE, CHRONIC TESTING MUST BE CONTINUED FOR THE REMAINDER OF THE PERMIT.					
Principal Executive Officer					
First Name:	Andy	**Title:**	Mayor	**Telephone:**	575-267-5216
Last Name:	Nunez				
No Data Indicator (NODI)					
Form NODI:	--				

Parameter		Monitoring Location	Season #	Param. NODI		Quantity or Loading					Quality or Concentration							# of Ex.	Frequency of Analysis	Sample Type
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units			
22415	Whole effluent toxicity - retest #1	1 - Effluent Gross	0	--	Sample						=	0	=	0			9A - pass=0;fail=1		09/99 - See Permit	24 - COMP24
					Permit Req.							Opt Mon 48HR MIN		Opt Mon MO AV MN			9A - pass=0;fail=1	0	09/99 - See Permit	24 - COMP24
					Value NODI															
22416	Whole effluent toxicity - retest #2	1 - Effluent Gross	0	--	Sample						=	0	=	0			9A - pass=0;fail=1		09/99 - See Permit	24 - COMP24
					Permit Req.							Opt Mon 48HR MIN		Opt Mon MO AV MN			9A - pass=0;fail=1	0	09/99 - See Permit	24 - COMP24
					Value NODI															
TEM3D	Low Flow Pass/Fail Static Renewal 48Hr Acute Daphnia pulex	1 - Effluent Gross	0	--	Sample						=	1	=	1			9A - pass=0;fail=1		01/YR - Annual	24 - COMP24
					Permit Req.							Req Mon 48HR MIN		Req Mon MO AV MN			9A - pass=0;fail=1	1	01/YR - Annual	24 - COMP24
					Value NODI															
TOM3D	NOEC Lethal Static Renewal 48HR Acute Daphnia pulex	1 - Effluent Gross	0	--	Sample						=	75	=	75			23 - %		01/YR - Annual	24 - COMP24
					Permit Req.							Req Mon 48HR MIN		Req Mon MO AV MN			23 - %	1	01/YR - Annual	24 - COMP24
					Value NODI															
TQM3D	Coef Of Var Statre 48Hr Acute D. Pulex	1 - Effluent Gross	0	--	Sample						=	83.85	=	83.85			23 - %		01/YR - Annual	24 - COMP24
					Permit Req.							Req Mon 48HR MIN		Req Mon MO AV MN			23 - %	1	01/YR - Annual	24 - COMP24
					Value NODI															

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

retest #3 PASSED

Attachments

No attachments.

Report Last Saved By

HATCH, VILLAGE OF

User:	jduran@villageofhatch.org
Name:	Juan Duran
E-Mail:	jduran@villageofhatch.org
Date/Time:	2018-08-06 10:53 (Time Zone: -05:00)

Report Last Signed By

User:	jduran@villageofhatch.org
Name:	Juan Duran
E-Mail:	jduran@villageofhatch.org
Date/Time:	2018-08-06 10:53 (Time Zone: -05:00)

Bio-Aquatic Testing, Inc.

TCEQ TNI Accredited

Village of Hatch
WWTP
OUTFALL 001

Client Address:
133 N. FRANKLIN
HATCH, NM 87937

48 Hr Acute Biomonitoring Report

69330

Daphnia pulex

April 04, 2018

Approved by: Joshua Reed

TABLE OF CONTENTS

***HAND-WRITTEN RAW DATA TABLES ARE AVAILABLE UPON REQUEST**

BIO-AQUATIC TESTING, INC.
2501 Mayes Road, Suite 100
Carrollton, Texas 75006
Tel: (972) 242-7750
Fax: (972) 242-7749

TOXICITY TEST REPORT - 48 Hr Acute

Client:	Hatch, Village of	Sample:	001
Facility:	WWTP	Laboratory Number:	69330
Permit No.	NM0020010	Date:	April 04, 2018

Daphnia pulex **failed** survival testing requirements.

SAMPLE COLLECTION:

Composite effluent samples from Village of Hatch, WWTP, were received on April 04, 2018 and April 05, 2018. Effluent samples were collected from Outfall 001 by facility personnel.

The effluent samples were analyzed for total residual chlorine using the Hanna Ion Specific Meter #711 and contained <0.10 mg/L and <0.10 mg/L, respectively. Effluent and laboratory dilution water pH, temperature, and dissolved oxygen data were collected daily.

TEST PROCEDURES:

Daphnia pulex

EPA METHOD: 2021

The 48 Hr Acute *Daphnia pulex* test was initiated at 13:52 hours on April 04, 2018. Five effluent concentrations of 32%, 42%, 56%, 75%, and 100% were prepared utilizing synthetic water as dilution water. The test was set up with 30mL plastic cups containing 20mL of test solution. Each concentration or control consisted of five replicate cups with eight organisms each, giving a total of 40 (forty) per treatment. The control was conducted concurrently with the test. Test organisms were less than 24-hour old laboratory cultured neonates. Food consisting of a half-milliliter suspension of the green algae, *Selenastrum capricornutum,* and YTC was fed to the organisms in holding and again at test renewal. The test proceeded for 48 hours. Data on survival was collected daily and water quality parameters were recorded after each 24-hour period. The test was renewed after 24-hours with newly prepared solutions. The test ended at 12:48 hours on April 06, 2018. Survival data was statistically (p=0.05) analyzed according to EPA procedures to determine the Lowest Observable Effect Concentration (LOEC) and the No Observable Effect Concentration (NOEC).

SURVIVAL:

Daphnia pulex

The *Daphnia pulex* survival data failed Shapiro Wilk's test for normality at the 0.01 (0.900) alpha level after the arc sine (square root (Y)) transformation. Bartlett's test for homogeneity is sensitive to non-normal data and should not be performed if data fails Shapiro Wilk's test. The non-parametric Steel's Many-One Rank test performed on *Daphnia pulex* survival data demonstrated a statistically significant difference between the control and the 100% effluent concentration tested.

LOEC: 100% Effluent
NOEC: 75% Effluent

BIO-AQUATIC TESTING, INC.

TOXICITY TEST

48 Hr Acute *Daphnia pulex*

Lab ID: 69330

Client: Hatch, Village of WWTP

Test Temperature (oC): 25 ± 1

Permit Number: NPDES NM0020010

Photo Period: 16 hours light
8 hours dark

Sample Type: Composite **Outfall Name:** 001

Begin Date: 4/4/2018

Receiving Water Name: Hatch Creek

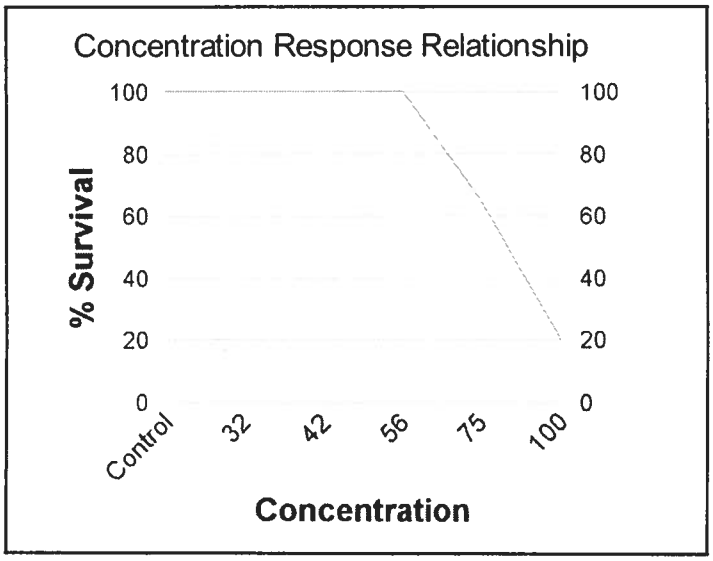
End Date: 4/6/2018

Test Start Time: 13:52 Test End Time: 12:48

SURVIVAL

Effluent Con. %	Number Of Alive Per Replicate															Avg% Surv.
	4/4					4/5					4/6					
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	
Control	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	100.0%
32	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	100.0%
42	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	100.0%
56	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	100.0%
75	8	8	8	8	8	8	8	8	8	8	5	3	8	3	7	65.0%
100	8	8	8	8	8	7	6	6	3	8	1	1	3	0	3	20.0%

*spilled cup



BIO-AQUATIC TESTING, INC.
2501 Mayes Road, Suite 100
Carrollton, Texas 75006
Tel: 972-242-7750
Fax: 972-242-7749

48 HOUR ACUTE SURVIVAL

Organism: **Daphnia pulex** Lab ID: **69330**

Client: **Hatch, Village of** - WWTP Outfall: 001

TEST INSTRUCTIONS: Acute Pulex Only

Culture No. : DP040418

RANDOMIZATION: SC-5 0

Photo Period: 16hr Light / 8hr dark

Concentration	No. Surviving Organisms, 0 Hrs.					No. Surviving Organisms, 24 Hrs.					No. Surviving Organisms, 48 Hrs.				
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
Control	8					8					8				
32 %	8					8					8				
42 %	8					8					8				
56 %	8					8					8				
75 %	8					8					5_3	3_5	8	3_5	7_1
100 %	8					7_1	6_2	6_2	3_5	8	1_6	1_5	3_3	0_3	3_5
Date/Time	4-4-18 / 1352					4-5-18 / 1301					4-6-18 1248				
Technician	SF					SF					AP				

Lined through spaces preceded by a number represent the same number. Lined spaces without a preceding number indicate unused or not applicable s

BIOMONITORING REPORT

Daphnia pulex SURVIVAL TEST

Permittee: Hatch, Village of -WWTP

Permit No.: NM0020010

Outfall No.: 001

		Date/Time		Date/Time
Dates and times	FROM:	4/2/2018 @08:20	TO:	4/3/2018@ 08:20
Composites were collected:	FROM:	4/3/2018 @08:20	TO:	4/4/2018@ 08:20

Test Initiation: Time: 13:52 Date: 4/4/2018

Dilution Water Used: [ ] Receiving Water [X] Synthetic Dilution Water

DATA TABLE FOR SURVIVAL OF *Daphnia pulex*

TIME	REPLICATE	EFFLUENT CONCENTRATION (%)					
		0%	32 %	42 %	56 %	75 %	100 %
24 HOUR	A	100	100	100	100	100	87.5
	B	100	100	100	100	100	75
	C	100	100	100	100	100	75
	D	100	100	100	100	100	37.5
	E	100	100	100	100	100	100
48 HOUR	A	100	100	100	100	62.5	12.5
	B	100	100	100	100	37.5	12.5
	C	100	100	100	100	100	37.5
	D	100	100	100	100	37.5	0
	E	100	100	100	100	87.5	37.5
MEAN		100	100	100	100	65	20
CV %[1]		0.00	0.00	0.00	0.00	43.85	83.85

[1] Coefficient of Variation = (standard deviation/mean) x 100)

?= cannot be calculated due to 100% mortality or lab exception

DUNNETT'S PROCEDURE OR STEEL'S MANY-ONE RANK TEST (as appropriate for Lethality)

Is the mean survival at 48 hours significantly different (p=0.05) than the control's survival for the low flow or critical dilution?

CRITICAL DILUTION (100 %): X YES _____ NO

If you report NO, enter a '0' on the DMR form for Parameter No. TEM3D, other wise enter a '1'.

Enter the percent effluent corresponding to each NOEC below:

NOEC SURVIVAL: 75 % Effluent (Parameter TOM3D)

LOEC SURVIVAL: 100 % Effluent (Parameter TXM3D)

Q* refers to a value that is not calculable